



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,246	10/30/2001	Robert L. Kleinberg	60.1323/1324 CIP	7874

7590

06/11/2003

Intellectual Property Law Department  
Schlumberger-Doll Research  
Old Quarry Road  
Ridgefield, CT 06877-4108

EXAMINER

VARGAS, DIXOMARA

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/016,246

Applicant(s)

KLEINBERG ET AL.

Examiner

Dixomara Vargas

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 26-29 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 24 and 26 – 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Blades et al. (U. S. patent 6,111,408).

In re claims 1, 9, 11, 17, 21, 22 and 26; Blades in the U. S. patent 6,111,408; figures 1 – 5 and related text, discloses introducing a fluid sampling tool into a well bore that traverses an earth formation (abstract); using the fluid sampling pool to extract the fluid from the earth formation into a flow channel within the tool (Column 3; Lines 39 – 40); monitoring an indication of contamination in the fluid while extracting the fluid from the earth formation and flowing the fluid through the flow channel (Column 3; Lines 39 – 51); when the indication of contamination in the fluid has been stabilized, analyzing the fluid in the flow channel (Column 3; Lines 39 – 67).

3. In re claim 2, Blades shows wherein monitoring the indication of contamination comprises performing a magnetic resonance measurement on the fluid in the flow channel (Abstract).

Art Unit: 2859

4. In re claim 3, 19, 20, 22 – 24, Blades teaches wherein the indication of contamination comprises at least one of the following: viscosity, relaxation time, composition, trace element content, diffusion coefficient, proton density, signal amplitude, molecular conformation, and chemical shift (Column 4; Lines 18 – 27).
5. In re claim 4, Blades further discloses wherein analyzing the fluid in the flow channel comprises performing a magnetic resonance measurement on the fluid in the flow channel (Abstract).
6. In re claims 5, 10 and 18, Blades further teaches wherein analyzing the fluid in the flow channel comprises stopping the flow of fluid in the flow channel while performing the magnetic resonance measurement (Column 3; Lines 39 – 67).
7. In re claim 6, Blades further shows wherein analyzing the fluid in the flow channel comprises slowing the flow of the fluid in the flow channel while performing the magnetic resonance measurement (Abstract).
8. In re claim 7, Blades additionally teaches wherein analyzing the fluid in the flow channel comprises continuing the flow of the fluid in the flow channel while performing the magnetic resonance measurement (Column 3; Lines 39 – 67).
9. In re claim 8, Blades additionally discloses wherein analyzing the fluid in the flow channel comprises determining at least one of the following: fluid volume, diffusion coefficient, relaxation time, proton chemical shift, hydrogen/carbon ratio, viscosity, stock tank API gravity, and fluid composition (Claim 3).

10. In re claims 12 and 14, Blades additionally shows further comprising applying a second oscillating magnetic field at a frequency sensitive to hydrogen nuclei to the fluid in the flow channel (Columns 6 and 7; Lines 64 – 67 and 1 – 4).
11. In re claim 13, Blades discloses wherein analyzing the detected magnetic resonance signals comprises decoupling the second oscillating magnetic field from the detected signals (Figure 5).
12. In re claims 15, 17 and 21, Blades teaches wherein analyzing the detected magnetic resonance signals comprises calculating a hydrogen/carbon ratio (Columns 6 and 7; Lines 64 – 67 and 1 – 4).
13. In re claim 16, Blades shows wherein analyzing the detected magnetic resonance signals comprises estimating hydrocarbon quantity in the fluid (Columns 6 and 7; Lines 64 – 67 and 1 – 4).
14. In re claim 27, Blades teaches wherein the means for generating an oscillating magnetic field comprises means for generating a sequence of oscillating magnetic field pulses (Figure 1).
15. In re claim 28, Blades discloses wherein the means for generating an oscillating magnetic field comprises means for varying the frequency of the oscillating magnetic field (Figure 1).
16. In re claim 29, Blades shows wherein the means for detecting nuclear magnetic resonance signals comprises means for detecting nuclear resonance signals from more than one type of nucleus (Figure 1).

Art Unit: 2859

*Claim Objections*

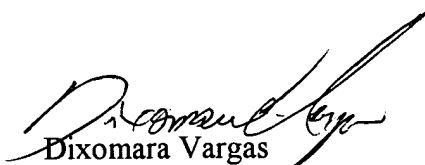
17. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

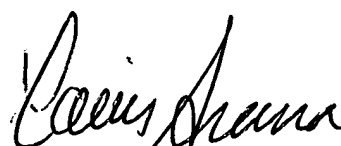
*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (703) 305-5705. The examiner can normally be reached on 8:00 am. to 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0956.

  
Dixomara Vargas  
June 7, 2003

  
Louis Arana  
Primary Examiner